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Conclude a Contract Through Electronic Agents[1]?

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Contents

1. The »global world« of electronic commerce is expanding in a tremendous way. It is no more simply the fact of business like it was in the eighthies' with the development of the first E.D.I. transactions; but more and more consumers are achieving transactions through the net[2]. In order to support this development, »there is an increasing demand for clarity in the rules which apply to the participants and their transactions«[3]. Any legal uncertainty might affect the use of the new technologies and slow their development. Matters like the validity or enforceability of electronic agreements and the legal value of electronic evidentiary traces are pointed out. How will courts determine the operative terms of on line contracts? To what extent, the parties might be liable for damages occurring in case of defective transactions or defective performance of electronic transactions? Which kind of self-regulatory mechanisms are acceptable to solve the possible litigation and which national law will be available?

This paper has been written in the context of the Eclip project financed by the European Commission (DG. XIII, Esprit programme). This project, joining together five research centres specialised in Computer Law (ITM (Muenster), Crid (Namur), QMW (London), NRCCL (Oslo) and CEDIB (Spain) aims to foster research in the legal aspects of the electronic commerce. The outputs of the research are available on the ECLIP web site at http://www.jura.uni-muenster.de/eclip/.

On that trend, M. Chissick and A. Kellman, Electronic Commerce, Sweet and Maxwell, 1999, especially the introductory chapter, 1-15.

New Zealand Law Commission's report on Electronic Commerce, introduction to chapitre 3 (available at http://www.lawcom.gov.nz/Ecomm/R50chap3.htm).

Many recent national and international texts are dealing with most of these questions. One can quote international texts like the Uncitral Model Law on Electronic Commerce[4], European ones like the Distance Selling Directive[5] or more recently the very debated draft proposal Directive on certain aspects of the electronic commerce[6] and finally a large number of national regulations pending or already adopted especially the article 2B of the United States Uniform Commercial Code[7].

2. Amongst these various contractual issues, the present contribution will deal with only a specific topic: it intends to solve the difficult problem of the legal validity of contracts concluded with the help of electronic agents: in other words, »Can computers make contracts[8]«, considering the traditional legal requirements of the so called Civil Code principle of the »autonomy of the will«[9] more or less analogous with the traditional Common Law contractual element: the »intent to create legal relations«[10]. Our concern is thus whether computer-generated contracts or computer-assisted contracts are legally binding contracts.
The reason to analyse this particular point is the following: the recent European draft directive although it addresses many of the legal issues around electronic contracting does not explicitly envisage the point. Therefore, we would like to see to what extent clear regulatory solutions are needed, especially from a »Code Napoleon« lawyer's perspective, on these points taking into consideration the fact that outside Europe, the legislative way has been followed in order to abolish any uncertainties about the validity of the electronic transacions[11].

4 Uncitral Model Law on Electronic commerce with Guide to Enactment, 1996 available at http://www.innov.un.or.at/uncitral.
5 Directive 97/7/EC.
6 COM (1998) 297 final.
7 Presently still in discussion, on this article and the multiple provisions contained therein, see notally the proceedings of symposium organised about The Uniform Commercial Code proposed article 2B published by the John Marshall Journal of Computer & Information Law, 1997, Vol. XVI, 2 (particularly the Introduction written by the father of the presently discussed American Legislation, R.T. Nimmer, 211-255).
8 following the title of the famous article published in 96 by T. Allen and R. Widdison, Can computers make contracts?, (1996) Harvard Journal of Law and Technologies, 25 and ff.
9 as regards this principle considered as the fundament of the enforceability of the contract, see the analysis of comparative law proposed by G. Rouhette, Contribution à l' étude critique de la notion de contrat, Thèse, Paris, 1965, 1-66.
10 See notally, Chitty on Contracts, paras 2.105-2.120; Cheshire and Fifoot's Law of Contract, Chap. 5.
11 As Prof. Nimmer did recognise in his first article on the subject (R.Nimmer and P. Krauthouse, Electronic Commerce: New Paradigms in Information Laws, (1995) 31 Idaho Law Review, 949): »Some might favor an approach to development of modern commercial law that requires fitting electronic practice and the law that governs it into these old paradigms developed for paper, hard goods and the other traditional venues around which commercial law was organized. But fitting new models into old forms takes too much from both.«; Compare with the cautious attitude taken by M.B. Andersen on the same topic: »The question whether legislators take up the challenge of electronic commerce and legislate for it should in my opinion be answered on a need to have a basis . . .« (M.B. Andersen, Electronic Commerce: A challenge to private Law?, Centro di studi e ricerche di diritto comparato e straniero, Saggi, Conferenze e Seminari, Vol. 32, Roma, 1998, 28).
12 The text of the February draft of the article 2B is available at http://www.law.upenn.edu/library/ulc/ucc2/2b298.htm
13 Pattie Maes proposes the following definition: »programs that are capable of reacting with an environment, adapting themselves to circumstances, taking decisions or refining their own behaviour on the basis of the observations made by them« (Intelligent Software, Scientific American, Vol. 273, n° 3, 84-86)
14 See among others, A.H. Boss, the legal status of Electronic Data Interchange in the United States, Paper as part of the Eltrado Project (funded by the Volkswagen Foundation), July 92, 1.
15 As regards the fact that EDI messages might be generated automatically, see already the statement done by the U.N. working Group on International Payments, Peport before the General assembly, 24th sess., A/CN. 9/360, 23: »It was stated that, in practice, the decision of accepting an offer in such a context typically required an human intervention. However, it was observed that it was technically feasibe to program a computer so that it would automatically react to an offer by sending a message of acceptance or by adopting a conduct that amounbted to acceptance. It was genrally admitted that such pre-programming should constitute a presumption that the programming party has intended to approve the sending of a message of acceptance or to any conduct of the machin under his control. . . .«
16 On that distinction, see the interesting presentation made by S. Gauthronet and F.Nathan, On line services and the protection of Privacy, Study for the Commission of the European Community (D.G. XV), 35-40.

Chapter *Electronic agents as a tool to conclude contracts*

3. The concept of »Electronic agent« under article 2B-102(a)(21) of the draft Uniform Commercial Code of the United States means[12]: »a computer program or other automated means used by a party independently to initiate or respond without review by an individual to electronic message or performances on behalf of that person«. It is quite clear that this concept encompasses a lot of intelligent agents[13] used for contractual purposes. Traditionally, E.D.I. systems in the strictest sense that is to say »computer to computer exchange of information in predetermined format«[14] have been viewed as the first case of electronic agent used for contractual bargain and we will come back to the reflections already done in that context[15]. But since the development of Internet, new Electronic agents have been developed both from the service provider's point of view: the »Demand Agents« and from the client's point of view: the »Decision Agents«[16].
Among the first class, we might enumerate the various automated systems, which might answer automatically to the request of the client and propose the adequate transaction taking into account his demand.
The second class is currently in development. A large number of »buying agents« are able to automatically compare the products or services proposed by different service providers in order to find the desired product from the

infinite supply or offers existing on the internet[17] or to select the adequate web site following different criteria proposed to web site users. Let us add both that these buying agents might be incorporated inside of the computer system of the client or offered by specialised companies which are offering this kind of service at the demand of a user and that this user might be a simple consumer or a company[18].
Perhaps a third class of Electronic agent has to be envisaged: certain companies using intelligent agents are now acting between users and providers. At this point, the Camif example ought to be pointed out: »the Camif Group provides its visitors with its own intelligent agent, which then actually performs the function of a seller. The agent serves not just to select products of interest to the client . . . but also to automatically configure customised pages of the electronic catalogue by collecting corresponding HTML objects in the articles base. Therefore, the intelligent agents are virtually sales persons and advisors which are also able to perform linked sales of accessories«[19].

4. So, in an open system like Internet, the electronic agent's concept might not be limited to the electronic agent developed from the supplier's information system. Contrary to the traditional E.D.I. scheme, the concept covers situations which are concerning not only business companies but also residential users[20] and it encompasses also various systems which do not have the role to fully achieve the transaction but only to help to select the adequate partner. In that case, the problem, which might occur, is the error on the quality of the contracting party. To take an example, if I use a P.3.P. Software system in order to select the companies which are respecting my privacy preferences but due to the malfunctioning of the system, I contract with a company which is not privacy compliant. The judge will view this fact undoubtedly as an error about the quality of the contracting party, this quality being considered as important insofars I employ ad software especially for this purpose.
5. Finally, another difference between modern electronic agents and EDI systems might be underlined. Whereas EDI contracting programs are operating following very simple and stable pre-programmed instructions, »computer systems are now emerging that can operate not just automatically but autonomously. Autonomous machines can learn through experience, modify the instructions in their own programs and even devise new instructions. They can make decisions based on the self-modified or self created instructions. If autonomous computers are able to learn and modify their own behaviour in this way, a reasonable implication must be that they are capable of manifesting (or at least, appearing to manifest) human cognitive processes which we associate with the exercise of free will«[21].

17 Like e.g. Bargain Finder developed by Andersen Consulting or Challenger developed by the MIT. The Bargain Finder systems allows the users interested by music compact discs to find the places where to find the desired music C.D. and to provide the needed hyperlinks to order it.
18 See for examples of the implementation of electronic agent in electronic commerce operations, The list of projects funded by the E.U. Commission described at http://www.ispo.cec.be/Ecommerce/agent.htm#report.
19 The functionning of this third category of electronic agent is raising a certain number of question about the Data protection of its users sofar that the supplier of the service will be able to profile the habits and preferrences of the users in order to help him ti select the appropriate web sites.
20 On that point, see D. Griffiths, Contracting on the Internet, (1997) 13 E.I.P.R., 4.

Chapter 2: *Enforceability of the Contracts concluded through Electronic Agents: the European Answer*

6. The use of Electronic agents for the purposes of entering into contracts raises questions related to the existence of consent of the party using the agent. To what extent might we consider that the automated assent delivered by an electronic Agent will be viewed by the Courts, as a »consent to be bound«? The answer is unclear. Furthermore, software errors might happen and Electronic agents might unexpectedly assent to contractual terms or with a party in a way not reflecting the actual intent of the contracting persons. Independently of the liability issues raised by the use of the software and to be supported either by the furnisher of the software or the user of it, the question arises if the party »assenting« only in an apparent manner will be bound.

7. The European Draft proposal of Directive[22], as already asserted, does not answer to the question. As underlined by Rosa Barcelo[23], the proposal does not mention explicitly the problem of the Electronic agent in the recitals and in the provisions. The only explicit reference is in the explanatory Memorandum about article 9 of the draft Directive. The Memorandum asserts that ». . . for the purposes of incorporating this article (the article 9) into their legislation and enforcing the obligation, the Member States will have to not prevent the use of certain electronic systems as electronic agents«. It is quite difficult to deduce from this explanatory Memorandum a clear assertion that

21 T. Allen and R.Widdison, op.cit. and their multiple quotations to scientific articles about artificial intelligence.
22 Already quoted footnote 6. Till now, no modifications have been proposed as regards this specific provision.
23 R.J. Barcelo, Electronic contracts: A new legal framework for electronic commerce: the E.U. Electronic Commerce Proposal, C.L.S.R.,15, n° 3, 1999, 153.

the different European legal systems have to recognise the validity of contracts concluded wholly or partly electronically.

Could we consider the text of the article 9.1 of the Draft Proposal as a fundament for this recognition? The text says: »Member states shall ensure that their legislation allows contracts to be concluded electronically. Member States shall in particular ensure that the legal requirements applicable to the contractual process neither prevent the effective use of electronic contracts nor result in such contracts being deprived of legal effect and validity on account of their having been made electronically«. This article contains a very far-ranging obligation on the Member states to amend their national laws to »identify everything which might in practice prevent the »effective use« of electronic contracts« at any moment of the contractual process including formation and performance of the contract.
The first commentators[24] of the Directive have underlined the fact that this provision was an evidentiary rule focused only on the formal legal requirements existing in the different Member States, like the requirement of »writing« or other regulatory formalities aimed at protecting consumers or achieving administrative purposes. Another interpretation might be developed insofar the text refers explicitly not only to the effect but also to the validity of the contract of electronic contracts. Indeed, except in rare cases[25], the evidentiary rules are not a question of validity of the contract but raise only a problem as regards the proof of the contract. So, it might be argued that the article 9.1 also covers the problem of the consent, which is a question of validity.

8. A certain support to this interpretation might be found in the interpretation given explicitly by the Uncitral to a comparable provision. Article 11 of the Uncitral Model Law on Electronic Commerce provides: ». . . Where a data message is used in the formation of the contract, that contract shall not be denied validity or enforceability on the sole ground that a data message was used for that purpose.« The article-by-article comment of this article is particularly interesting: »However the provision is needed in view of the remaining uncertainties in a considerable number of countries as to whether contracts

24 R.J. Barcelo, eod.loco; C. Kuner, First Thoughts on electronic contracting under the proposed E.U. »E-Commerce Directive«, paper presented at the ECLIP workshop held at Palma, march 99; to be completed.

25 Certain cases where the evidentiary requirements are a question of validity of the contract are mentioned in article 9.2. (contracts requiring the intervention of a notary; contracts governed by family law; . . .) and will not be subject to the general principle embodied in article 9.1. Other cases do exist like for example, at least in Belgium, the requirement to have a writing in order to create certain kinds of companies and will be subject to the principle of article 9.1.

can validly be concluded by electronic means. Such uncertainties may stem from the fact that, in certain cases, the data messages expressing offer and acceptance are generated by computers without immediate human intervention, thus raising doubts as the expression of intent by the parties . . .«. However, the argument founded on the Uncitral precedent does not seem totally convincing. The validity of contracts concluded automatically by electronic means is founded under the Uncitral Model Law not on the sole article 11 but rather on the article 13 which clearly envisages the problem asserting in its second paragraph that:

> *»As between the originator and the addressee, a data message is deemed to be that of the originator if it was sent:*
> *a)* . . . ;
> *b) by an information system programmed by, or on behalf of the originator to operate automatically«.*

So, it seems that the simple reference to the legal obligation imposed to the Member States not to deprive of validity contracts concluded by electronic means on the sole ground that they have been concluded so, is not sufficient to ensure the validity of the contracts concluded by electronic agents. The article 9.1 of the draft Directive[26] does not suppress the positive contractual requirement imposed by the national legislation to have a manifestation of assent expressed by each contractual party. The only solution would have been as it is the case under the Uncitral model or in the U.S. draft legislation[27] to add to

26 Let us add furthermore that the wide scope of the provision and the obligation imposed to the Member States will create problems of interpretation on the part of the different Member states implementing the Directive.

27 The U.S system provided by the new version of the U.C.C. still in discussion is quite intricate: the section 2B-111 about »Manifesting assent« says:
> *»A person or Electronic agent manifests assent to a record or term in a record if the person, acting with knowledge of, or after having an opportunity to review the record, term of copy of it, or if the electronic agent, after having an opportunity to review:*
> *(1) authenticates the record or term;*
> *(2) in the case of the conduct or statements of a person, the persons intends to engage in the conduct or make the statement and has a reason to know that the other party may infer from the conduct or statement that the person assents to the record or term;*
> *(3) in the case of operations of an electronic agent, the electronic agent engages in operations that the circumstances clearly indicate constitute acceptance;*
> . . .

This first provision is completed by the section 2B-112 which defines the »opportunity to review«, as a precondition to manifesting assent to a record:
> *»A person or Electronic agent has an opportunity to review a record or term only if the record or term is made available in a manner that:*
> *(1)* . . .
> *or*
> *(2) in the case of an electronic agent, would enable a reasonably configured electronic agent to react to the record or term.«*

the provision in discussion another one asserting clearly that a message is attributable to a party if it is sent by that party, its agent, or its electronic agent programmed to operate automatically for that purpose.

> *»In attributing the act of the electronic agent to the person who uses that agent (to adopt the expression of the UCC) or, in attributing the act of an information system programmed by or on behalf of a party (to use the Model Law's expression), they also serve to prevent any disavowal of intention to create legal relations by the person«*[28].

9. Considering the fact that no explicit legislative solution is to be found in most of the European legal systems, how can we ensure the legal validity of contracts concluded through or with the assistance of electronic agents? Our answer will deal only with the Code Napoleon legal systems even if certain reflections drawn from other legal systems will be made.

Chapter 3: *First Attempts of solutions*

10. The problem is not absolutely new. It has been dealt with in the context of the validity of EDI or EFT transactions[29]. However, the discrepancies between the contractual situations created in the context of EDI and EFT transactions and those envisaged now under the concept of contracts concluded through Electronic agents are quite important. Particularly, the EDI transactions[30] were taking place very often within a closed users' group between business parties in continuous relationship. That is why, the problem of the validity of the transactions concluded electronically might find an easy contractual solution: Article 3.1.of the recommendation of the European model EDI agreement estates that »the parties, intending to be legally bound by the agreement, expressly waives any rights to contest the contracts effected by the use of EDI in accordance with the terms and conditions of the agreement on the sole ground that it was effected by EDI«. In other terms, between well identified parties, it is quite easy to put within a traditional paper based

28 New Zealand Law Commission Report on Electronic Commerce, op.cit., n° 63.

29 See e.g. L.Elias, J. Gérard, G.K. Wang? Le droit des obligations face aux échanges de données automatisées, Tedis Report, publié comme Cahier du Crid, n° 8, Kluwer, Story-Scientia, Bruxelles, 1992, Particularly, 33-47; R. Julia Barcelo, La formacion del contrato por medios electronicos, Thesis, UIB, Spain, to be published and the large number of articles and reports quoted by the autor, 222 and ff.

30 As regards EFT transactions, they are taking place between contractual parties (see on that point, Y. Poullet, X. Thunis, (to be completed).

document considered as a »contrat-cadre«[31] (framework-contract) a provision asserting that all the transactions Carried out on the basis of this contract will be validly concluded by the sole use of electronic means and might not be disavowed by the parties for this reason. So, in the context of an Interchange Agreement concluded prior to the beginning of electronic transactions, it is easy to make clear that between the future trading parties, the computer generated transactions will be considered as binding. This solution has been broadly implemented in the context of EDI or EFT transactions.

In case of contracts concluded in an open environment with people not necessarily previously identified or identifiable, such a solution is more difficult[32]. »Where a global contract, regulating the essential aspects of the different following transactions concluded in the context of this global contract does exist, the enforceability of the following transactions is based on the provisions of this global contract even if they are concluded and realised through electronic means«[33]. So, the question to know if the validity of a contract concluded through electronic agents might exist independently of any global contract is still to be debated[34].

11. Different solutions have been advanced to overcome this legal obstacle. Briefly, we can distinguish solutions that recognise electronic agents as a legal person, able to have their own will and thus able to conclude contracts on their own or on behalf of the party involved in the transaction. In these first solutions, the holy doctrine of the »autonomy of the will« is not jeopardised.

A second category of solutions has been defended notably by French authors concluding that the conclusion of contract through electronic means is the result of a pre-programmed will. This solution does not challenge the legal requirement of the intent to create legal obligations.

The last one is more revolutionary insofar as it considers that the parties might be bound even if there is no intention to be bound. This third way to solve the

31 Zaki (Le formalisme conventionnel; Illustrations de la notion de contrat cadre, (1986), 4, RIDC, 1066 defines as follows the notion: »Le contrat cadre désigne l' accord qui a pour objet non la livraison d' une chose ou la prestation d'un service mais la prescription du contenu, des modalités et de la forme des futurs actes juridiques.« The concept of contrat cadre is typically a code civil concept used by continental legal systems. It seems that the concept has not been adopted by the anglo-saxon doctrine. On that point, see D. Tallon, V. Palmer in A. Sayag (ed.), Le contrat cadre: 1- Exporation comparative (France, Allemagne, Italie, Angleterre, Etats-Unis), Coll. Le droit des Affaires, Paris, Litec, 1994, 220 andff.

32 About that characteristic of Internet and their consequences on the regulatory approach, J. Kaufman Winn, Open systems, Free markets, and regulation of Internet Commerce, 72 Tulane L.Rev. 1177 (1998).

33 L. Elias and alii, op.cit., 40.

34 See already, T. Allen, Electronic data interchange and the formation of the contract, Proceedings of the Third National Conference on Law, Computers and artificial Intelligence, Aberyswyth, 1992, 3 and ff.

problem is justified upon the recent doctrine of the appearance as autonomous source of obligations. It will be developed in chapter 4.

A *Artificial intelligence and legal personhood*

12. The first explanation recognising to the electronic agent the quality of a new legal person has been gounded on the frequent comparison made by a pseudo scientific literature between the functioning's from one side, of present and of course future generations of artificial intelligence systems and from the other side of human reasoning. According to L. Solum[35] and M.S. Willick[36], a system which achieves self consciousness that is to say which is able to learn and to decide autonomously is morally entitled to be treated as a legal person. Nothing forbids that the legal systems will recognise new subjects, as it was the case with the recognition of the legal personality to companies and other associations. Apart from this »moral entitlement« argument, other arguments are developed to justify the granting of the legal personality. So, have been advanced the arguments of the »social reality« and of the »legal expediency« founded both on the previous example of the recognition of the legal personality to companies and on the social needs of this recognition. This new legal entity might act as authorised agent on behalf of the bargaining party or might be considered as a legal person whose acts are deemed under the responsibility of the bargaining party[37]. This argumentation is subject to severe criticisms.

13. The first objection is definitively the rather limited scope of the fundament so asserted. Not a lot of electronic agents might be viewed as supporting the comparison with the human reasoning and it remains very difficult to trace the line between the systems which will be judged worthy of this legal recognition and the others. Apart from the degree of sophistication, can we consider that the assimilation will be possible?
A second objection is more fundamental: the solution needs a long legislative process. The solution does solve the problem only if all nations adopt through

35 L. Solum, Legal Personhood for Artificial Intelligences, (1992) North Carolina Law Review, 70, 1231. The reasoning held by Solum is extensively developed by Allen and Widdison, op.cit., 6.

36 M.S. Willick, L' intelligence artificielle: les approches juridiques et leurs implications, in Ordre juridique et technologique, Paris, Cahiers S.T.S., 1986, 55-80; already in 75, J-P. Buffelan, Introduction à l' informatique juridique, Paris, PUF, 5.

37 All these arguments are extensively developed by T. Allen and R. Widdison, op.cit., 6-10; Cf. also, the brillant demonstration made by R. Clarizia (Informatica e conclusione del contratto, Coll. Diritto dell' informatica, n° 5, Giuffrè, 1985, 20-35) who is criticising this »umanizzarla« of the computer.

their legislations common standards in the definition of this new legal personality. This recognition is disputable considering the arguments and the reasoning held as regards the companies. If in these cases the legal personality is clearly a »procédé juridique«[38], a legal artefact founded on a legal fiction, this qualification is directly derived from the social needs as regards the legal relationships with third parties[39] and their financial consequences. This justification explains why the attribution of a patrimony to the legal personhood bearing the financial consequences of the contractual relationships is linked with the social capacity of the legal entity. Taking into account that perspective, it might be dubious that a legal personality will be attributed to electronic agents[40]. The attribution of a patrimony to a computer system has no sense. Which kind of responsibility and of contractual commitment will be supported by the computer itself if something wrong happens[41]?
The same objection might be raised as regards the schema which identifies the electronic agent[42] as an authorised representative or to be more precise an

38 On that issue, see the noticeable synthesis done by J. Foyer as regards the French legal system, La personnalité morale et ses limites, Travaux et recherches de l' Institut de droit comparé de l' université de Paris, T.XVIII, Paris, LGDJ., 1960, 112 and ff.; in the same sense, R.David, Rapport général, Travaux, 3-7. The last author underlines however the different attitude of certain american approach more based on the theory of the reality. Under this theory, the company has a natural right to be recognised as legal person because they are defending an interest different from the interest of their members.

39 »Octroyer la personnalité à un groupement d' hommes . . ., c'est constater qu'en ce qui concerne leurs relations juridiques avec des tiers il est commode de considérer tous les membres de ce groupe comme faisant un tout indivisible« (M. Waline, Droit administratif, 9th ed. 1964, n° 453). The same argument is developed by Allen and Widdison (op.cit., 7) according to the Teubner's developments (G. Teubner, Entreprise Corporatism: New Industrial policy and the »Essence« of the Legal Person, (1988) 36 Amer. Journ. of Comp. Law, 138 and ff.): »Legal persons are entities that are constructed within the legal system as »semantic artifacts« to which legally meaningful communications are attributed. In other words, entities are described as legal persons when the legal system attributes legally meaningful communications to them«.

40 Definitively for privacy reasons, the Internet user might decide to use a pseudonym or to navigate anonimously thanks to the services of an anonymous remailer as in the real world you might contract under a borrowed name but this fact is without consequences as regards the patrimonial consequences of a so concluded contract.

41 In the same sense, see J-L Gagnon, L' échange de consentements et le commerce électronique: de l' autonomie de la volonté à la »volonté« de la machine, available at http://www.droit.umontreal.ca/~gagnon: »De plus puisqu' il existe d' autres moyens, moins ridicules et à tout le moins créant moins de remous dans le droit, nous croyons que le le législateur devrait s' abstenir d' accorder une telle personnalité aux ordinateurs, autonomes ou non« and V. Gautrais, L' encadrement juridique du contrat électronique international, Thèse, Montréal, 228: »En effet, il ne sert à rien de donner cette capacité juridique à une machine dans la mesure où un lien de responsabilité, pour le moins, doit être tracé entre la machine et la personne qui est derrière. Ainsi en cas d' erreur effectuée par une machine juridiquement capable et d' un dommage consécutif, il faut de toutes les manières »attribuer« le lien de causalité à la personne physique ou morale responsable de l' opération.«

42 On this theory, J.Fisher, Computers as agent: a proposal approach to revised U.C.C. art.2, (1997), Indiana.L.J.,72, 555 and ff.: »Indeed the provision discussed below dealing with EDI's capability to form a contract without human awareness or consent reach

agent acting apparently on behalf of the final addressee of the contractual message in order to make an offer or to accept it. This theory has been developed extensively by the American author J. Fisher as a way both to explain the fundament of the new proposed provisions of the article 2 B UCC and to suggest certain modifications of the proposed text. It is quite clear that the use of the Agency paradigm is influenced by the use of the same terminology in both the technical and the legal fields but our opinion the theory does not solve anything. Indeed, the agent must be a legal person, which has been objected previously and while admitting that it will be the case, the question to know why the represented party would be committed in case of malfunctioning of the software still remains. Normally, the party is committed only if the representative has acted within the limit of his mandate[43]. Essential to the recognition of the legal personality[44] the existence of a separate patrimony is clearly needed if the legal person will play an autonomous role vis à vis third parties. In ather words, we come back with the same argument already developed against the recognition of the legal personhood of the electronic agent. Fisher himself does recognise the limitations of the Agency Paradigm, insofar as he applies only a small portion of the Agency rules to the Electronic agent case: »The parts of Agency Law which apply to computers participating in N.H.I contracts are the parts that deal with agents qua agents; the parts of Agency Law that deal with agents as humans are insensible as applied to computers«. So, for example, Fisher does exclude the application of the rules about liability of the agent vis à vis the principal in case of breach of duty. That rule is however considered as an integral part of the nature of the Agency contract. Finally, the sole interest of the Fisher's Doctrine would be the explanation of the direct binding of the person acting through its computer, so wrongly qualified as an agent.

precisely results as agency law would reach if applied to the computers entered into contracts.« For a severe criticism of this theory, L. Thoumyre, L' échange des consentements dans le commerce électronique, report available at http://www.juriscom.net/université/doctrine/article4.htm., 13; more nuanced, C. Gagnon, op.cit., 22.

43 Among others, see J. Schmidt, Négociation et conclusion des contrats, Paris, Dalloz, 1982, 55and ff. J. Fischer himself accepts that certain rules legally applicaple to the contrat of agency ought not to be applied (see, op.cit., 557: »the principles of agency extended to computers in the agency paradigm are only those that deal with agents as agent, that is as entities doing the will of a human principal. The aspects of agency law that deal with agents as persons, that is, rules setting out the duties of agent to principal capacity to do of another, have been intentionally omitted from the agency paradigm set forth in this note«.).

44 »La personnalité ne serait guère qu' une abstraction si on ne lui accordait pas le pouvoir d' acquérir; effectivement, elle n' existe, au sens juridique du terme, que par sa faculté de prendre sa part des biens de la collectivité« (E. Huber, Introduction au code civil suisse, quoted by L. Thoumyre, L' échange des consentements dans le commerce électronique, report (http://www.juriscom.net/université/doctrine/article4.htm).

B. *The electronic agent as a way for the trading partner to express his own will*

14. The second solution considers the computer in general, the electronic agent in particular as a way to prolong the will of the legal entity which is currently using the program, in other words as pure tool of communication like a phone or a fax machine. According to the expression used ten years ago by I. de Lamberterie, the program embodied in the Electronic agent would be »un support technique prolongeant la volonté de l' utilisateur«[45]. As Allen and Widdison[46] noticed, this theory is exactly the contrary to the first one which does analyse the machine as an autonomous entity able of a distinct will: »We could choose to ignore this autonomy and treat it as no more than a passive adjunct or extension of the human trader. In effect, we would adopt the legal fiction that anything issuing from the computer really issues directly from its human controller«.
The basic idea of this theory is the fact that a person who has programmed and is operating a transactional system like an electronic agent must be considered as the direct author of all the messages expressed through this transactional system.[47]

12. Many objections might be addressed to this second thesis. A first one is the fact that this thesis does not pay attention to the characteristics of the Electronic agent. As already observed, the complexity of the functioning of these systems is such that their users are not already aware of their capabilities and that these systems have the possibilities to learn from the experience and from the environment. Furthermore, certain Electronic agents used by users particularly residential users are outside of the control of these people. The comparison with the fax or phone machines is thus irrelevant[48].

45 I. de Lamberterie, La vente par voie télématique, Study done on behalf of the Research Council of the Ministry of Justice, Intermediary report, feb. 98, 27-29.

46 op.cit, 46-47.

47 On that issue, please have a look with the very comprehensive statement proposed by R. Clarizia, informatica e conclusione del contratto, Coll. Diritto dell' informatica, n° 5, Giuffré ed., 1985, 33-40.

48 One of the first German author had already asserted that in 1985, at a moment where our computers were not so complex: R. Clemens, die elektronische Willenserklärung – Chancen und Gefahren, NJW, 1985, 34, 2001 and ff. The distinction between simple programs like those used in the context of the first EDI applications and those complex presently developed is founding the »Agency« theory of Fisher: »In other words, when a commercial actor uses computers in the capacity that it uses other tools, the law should treat the computers in the same manner as it treats other tools. Thus when a human actor uses merely a computer as a medium to send a message to another human person, the computer functions in the same way that a fax machine or a posted letter does. However, when a principal uses a computer in the same manner that it uses a human agent, then the Law should treat the computer in the same manner that it treats the human agent.« (Fisher, op.cit., 557).

Another objection Comes from from the disastrous consequences of the theory. If we consider that the Electronic agent is a communication tool of its user's will, we must conclude that the user will be committed automatically by the transactions initiated by the program even if the messages are not corresponding to the will of their »author«[49].
Finally, this theory which pretends to be in accordance with the legal doctrine of the autonomy of the will, has certain deficiencies vis à vis its legal base. As expressly asserted by the Belgian highest Court of Justice: under this doctrine, a contract »requiert pour sa formation non seulement la simple coexistence de volontés qui ignorent leur consensus, mais bien leur véritable concours à un moment donné, c'est à dire la conscience de leur commun accord sur l' objet du contrat[50]«. Then, if it is possible to consider that the Electronic agent's message implicitly are the expression of the will of its user, it is more difficult to consider that this will is expressed vis à vis a peculiar content[51] especially in the cases where due to a malfunctioning of the information system, its user argues that it is obvious that he will have never accepted the transaction.

Chapter 4: *The theory of the appearance: a new solution?*

15. At this point, it seems thus there is no possibility to conciliate the holy doctrine of the autonomy of the will and the principle of enforceability of the contract concluded through electronic agent. Do we conclude therefore that computers can not make contracts, creating by this conclusion a serious risk as regards the development of the electronic commerce? We are of opinion that the civil Code *theory of the appearance*[52], considered as an autonomous

49 This objection has been made by H. Croze, obs. under Cass.fr. 6 nov. 1984, D.S., 1985, 534-536; Comp.: »But if the courts adopt the legal fiction that a computer never operates autonomously, they give themselves no room to manoeuver. Considering the variety of situations which are likely to arise in practice, this hardly seems desirable.« (Allen and Widdison, op.cit., 47).

50 Cass.b., 16 june 1960, Pas. 1960, I, 1990, R.C.J.B. 1962, 301. This court case is quoted by L. Elias et alii, op. cit., 43. About the distinction between the notions of »coexistence« and »concours« of the intents, see the thesis of G. Rouhette already quoted, see also, J. Ghestin, op.cit., 217 and ff.; M. Tancelin, Source des obligations- l' acte juridique légitime, W and L., Montréal, 1993, 24.

51 It would have been the case if the Electronic agent is configured in such way to answer only to particular and prefixed message without any autonomy but as we have said modern Electronic agent are more sophisticated than that.

52 Various authors might be quoted, among others: as regards the French legal doctrine, J. Calais-Auloy, Essai sur la notion d' apparence en droit commercial, Thèse, LGDJ, Paris, 1959; J. Derrida and J. Mestre, Encycl. Droit civil Dalloz, v° Apparence; as regards the Spanish

source of obligations[53], might solve the problem taking into account the needed balances between the interests of the user of these technologies and the contracting party. The theory »advocates as autonomous source of obligations the creation vis à vis third parties including the contracting party of a legitimate faith in an apparent situation«[54].

16. According to certain legal doctrine[55], this theory is founded on the extra contractual liability. It is estimated that the party, who has wrongly created a false appearance or havs wrongly taken the risk of this false appearance, must support as result of his fault the recognition of the existence of the contract. This approach has been severely criticised.
Firstly, in most of the cases, there will be no fault to be identified as regards the person who uses the service of an electronic agent. Due to the sophisticated nature of the program, an error might always occur. Perhaps, it would be better argued that there is a strict extra contractual liability and that the sole creation of the risk might be as such considered as a source of a strict extra-contractual liability. The French and Belgian doctrines and case-law have precisely developed through a courageous interpretation of the article 1384 al.1 the idea of a strict liability of the guardian as regards the things and animals under his control. It might be argued that the electronic agent is under the »guardianship« of the company which uses it and therefore that the errors or malfunctioning of the program will be automatically under its responsibility.
Secondly, the fact that a person has caused a damage by creating the confidence of a third party in the existence of a transaction does not explain by itself why this person is held by a contract that he did not want to conclude. Indeed the judicial decision to maintain the »contract« will appear as the best way to avoid, or to be more exact, to prevent the damages if the contract should be a posteriori considered as void[56]. However this audacious solution

legal doctrine, A. Gordillo, La representacion aparente, Thesis, Sevilla, 1978; as regards the Belgian legal Doctrine, R. Kruithof, La théorie de l' apparence dans une phase nouvelle, RCJB, 1991, 45 and ff.; X. Dieux, Le respect dû aux anticipations légitimes d' autrui, Thèse, Bruylant, 1995.

53 P. van Ommeslaghe, L' apparence comme source autonome d' obligations en droit belge, RDIDC, 1983, 144 and ff.

54 S. Styns, W. van Gerven and P. Wery, Les Obligations, Chronique de jurisprudence, 1990-1995, J.T., 1996, 690 and ff.

55 This approach was sustained by the Belgian doctrine, see notally, P. de Harven, Etude sur la notion d'apparence en droit privé, Rev.dr.belge., 1938, 91. More recently, the thesis of X. Dieux (Le respect dû aux anticipations légitimes d' autrui,- Essai sur la genèse d' un principe général de droit, Bruylant, Bruxelle, 1995) intends to develop a very broad concept of the fault that will be defined as the simple non respect of the legitimate expectations of third parties including obviously the contracting party.

56 »C'est le mécanisme de la réparation en nature du dommage subi par les tiers qui justifie que la situation apparente sorte les mêmes effets que la situation réelle.« (P.A. Foriers, L' apparence, source autonome d' obligations ou application du principe général de l' exécution de bonne foi, J.T., 1989, 549.

must be decided by the judge on a case by case basis what will constitute an unsecured situation for the users except if the legislator imposes it.

17. Another opinion extensively developed in French and Spanish legal doctrines[57] avoids this extra-contractual base of the theory. According to a recent court decision of the highest Belgian Court of Justice[58], Number of Belgian authors have joined this second opinion. The legitimate faith of the third party combined with the requirements of the security of the transactions and the commercial benefits explain that the party could not catch the contracting party unaware by denying an appearance attributable to his own activity and causing then a damage to this contracting party. Finally, the theory of the appearance is founded on the world-wide accepted principle of the good faith as regards the conclusion of the contract[59]. This second opinion leadus to take into consideration firstly the position of the victim of the appearance of truth rather than the wrong attitude of its creator.
Based on this assumption, the legal doctrine and the courts have enumerated a certain number of conditions to apply the theory. Under our opinion, these conditions laid down which will permit to conclude to the existence of the contract notwithstanding the absence of the will, are perfectly applicable in the case of contracts concluded automatically through electronic agents.

18. The doctrine and the court cases impose four conditions[60] in order to apply the theory. These conditions are met in our case:

The first one requires an objective element: the apparent situation does not correspond with the real situation; in our case, the electronic agent has produced unexpected transactions.
The second condition imposes that the faith in the false transaction is legitimate. That implies not only that the contracting party is of good faith, ignoring de facto the real situation, but also that he might not know the real situation following the principle of reasonableness. So, if through the error provoked by the malfunctioning of an electronic agent, I purchase a certain number of

57 As regards the French legal doctrine, the principle has been established since the beginning by the father of the theory of the appearence, J. Calais-Auloy in his famous thesis . . .; as regards the Spanish legal doctrine, see the very comprehensive analysis of the principle and its legal recognition, proposed by R. Julia Barcelo in her thesis, p. 236 and ff. and the multipkle reference to Gordillo (La representacion aparente, Sevilla, 1978).
58 Cass. B. 20 june 1998, Pas. 1988, I, 1256; J.T., 1989, 547, obs. P. Foriers. About this court case and the legal doctrine, see S. Styns and alii, op.cit.
59 S. Styns and alii, eod.loco.
60 See similarly, the analysis done by R. Julia Barcelo as regards the application of the theory of the appearance to EDI contracts (Thesis, op.cit., 235-245).

goods for a minimal price not corresponding at all to the market price, it is not sure that the judge will consider my attitude as being of good faith. In most of the cases, however, the contracting party will have no difficulty to comply with this condition, provided that he is expecting that the functioning of the system especially purported to facilitate the conclusions of contracts does correspond with the instructions given to it and functions correctly[61].

The third condition is the existence of a damage in the case where the apparent contractual relationship would not be maintained. It must be underlined that an the contrary what is developed under the reasoning founded on the extra-contractual liability where the existence of the contract is considered as a way to solve the question of the damages created by the non existence of the contract, here it is considered that the contract is existing except if there would be no damage in breaking it.
Finally, last but not least, the courts will require that the creation of the false appearance will be attributable to the person against whom the appearance is invoked. This condition is available definitively when companies in order to accelerate and erhance their business use electronic agents. The company takes the risk that the computer makes an error and furthermore is in the best position to control this functioning or the persons in charge to operate the system[62]. The same reasoning might not be held in our opinion if a residential user who in many cases is unable to exercise this control uses the electronic agent. Finally, the fact that the message is signed by the electronic agent is clearly an apparent sign that the trading party intends to be bound by the message which might be attributed to him.

Let us notice in conclusion of this analysis of the conditions applied to the »electronic agent case«, that the application of the theory of the appearance will not in any situation lead to the recognition of the existence of the contract. It is one of the major interest of this theory to avoid any systematic solution but to let a certain margin of manoeuvre to the judge who will have to take into consideration exceptional situations where the faith of the contracting party is not legitimate or the creation of the false appearance is not the fact of the user of the electronic agent

19. This conclusion leads to certain criticisms as regards the American legislative solution founded on the »attribution« doctrine proposed by R. Nim-

61 In case of EDI transactions operated within a closed network in the context of continuous relationships between trading partner, this condition will be easier fullfilled.
62 On that point, R. Clarizia, op.cit., 36 and ff.; see also, R. Julia-Barcelo, Thesis, 240.

mer[63] and adopted both by the American Bill and the Uncitral Model Law[64]. The sections 2B-111 and 112[65] are construed as a system creating automatically a binding contractual relationship between the user of an electronic agent and his trading partner. The »manifest assent« is given under the provisions of these sections by the use of an electronic agent insofar as this agent is enabled to react and so has an »opportunity to review«. The main principle followed by the American legislator is to substitute the concept of »assent« to that of »manifest assent«[66]. The fact that apparently through its computer a person has entered into contract is sufficient. In other words, the creation of the appearance is as such sufficient to create the contract. Our suggested approach founded on the Civil Law theory of the appearance introduces certain shades. The appearance is not as such an autonomous source of contractual obligations insofar as only the legitimate expectations of the third party caused by a situation attributable to the user of the electronic agent might create these contractual binding transactions[67].

63 R.T. Nimmer, Electronic Contracting: Legal Issues, (1996) 14 Journal of Computer and Information Law, 211 and ff. The author estimates that the question to solve is the following: »If a message is sent, received or responded to, who should have obligations deriving from that fact in the situation where the message was incorrect or incorrectly issued?«. According to the author, the only possible answer is the person »behind« the computer who has taken the risk of entering into contract through this way. As Gautrais notices (op.cit. 229), this solution might be founded on economic grounds but the problem remains as regards the legal grounds. How except by a legislative decision as it is directly suggested by Nimmer can we explain the contractual commitment of the person who uses an electronic agent and enters into contract without human intervention.

64 Art.13 of the Uncitral Model Law is entitled: »ttribution of Data messages«:
(1) A data message is that of the originator if it was sent by the originator itself;
(2) as between the originator and the adressee, a data message is deemed to be that of the originator if it was sent . . . by an information system programmed by or on behalf of the originator to operate automatically. (. . .)

65 See supra, the text of the provision, note 12.

66 . . . or better expressed »apparent assent«.

67 A good example of this difference might be found in the State Farm Mutual Automobil Insurance Co v. Bockurst (453 F.2d 533 (10th Cir. 1972) quoted by many American authors. According to the facts, a motorist after an an accident occurred take contact with his insurance company to reinstate his insurance policy retroactively. Due to a computer program unable to deal with the event, the policy was reinstated. The Court ruled that the insurance company was held by his notice notwithstanding the bad faith of the motorist. The Court considers that the company's error was an error of the company, acting through its computer.
It is quite clear that the theory of the appearance would have led to a different conclusion provided that the motorist had serious reasons to know that the computer has operated wrongly.

Conclusion: *Contracting through electronic means: an evolution or a revolution?*

20. Definitively, there are sound reasons to consider that in most of the cases, despite any errors or malfunctioning of the sofware embodied into the electronic agent, the transactions concluded through them must be binding. Practical and financial benefits are expected by the generalisation of the use of this new way of ensuring the process of contracting. Doing business by computer generated agreements will permit buyers and sellers to save money and time. But do we need therefore a new contractual paradigm traditionally founded on a face-to-face relation between human beings. Professor Nimmer wrote in 97[68]: »No requirement exists in law that a contract offer be in writing and that there be a conscious, immediate human intent to make a binding commitment«. We agree with that idea but we are of opinion that the solution is not to assimilate the message issued by an electronic agent to a »manifest assent«. As Bernacchi and Grossman noticed: »This view arguably undervalues the importance of intent to the underpinnings of the contract and tends to ascribe the necessary intent to contract to machines. Of course, machines have no intent, except that which was embedded in the instructions given to them. However, the more complex the instructions are and the more leeway those instructions leave for adaptive change, the further removed the electronic negotiator is from the conscious intent of the human agents and the more the conceptual framework for contract breaks down«[69].
The same finding explains how it will be difficult to see in the message issued by the electronic agent, the »sufficient trace of the will« to take again the words of L. Thoumyre[70]. In our opinion, the solution is to be found clearly outside an hypothetical or fictitious declaration of intent. The need to respect the legitimate expectations of third parties as the base for the recognition of the contract seems in my opinion a solution more respectful of the two essential values that the contract has to ensure: »l' utile et le social« according to the famous title of an article of Ghestin[71], the commercial pragmatism needed for the security of business transactions and the »moral justice« to take again the two points of Allen and Widdison's conclusions.

68 R. Nimmer, Selling products Online: Issues in electronic contracting, 468 PLI/Pat 823 (1997).

69 R.L. Bernacchi and C.A. Grossman, Selected Issues in electronic contracting, paper available at http://cla.org/matsnpubs/memberarticles/SELECTISS.htm.

70 L. Thoumyre, op.cit., 15-16 speaks about the »empreinte suffisante de la volonté«, referring to Carbonnier.

71 J. Ghestin, Le contrat entre l' utile et le social, Arch. Ph. Droit, 1991; J. Ghestin, Traité de droit civil- T.2, Les obligations, Le contrat: formation, Paris, LGDJ, 1988, 181 and ff.; Vincent Gautrais (L'encadrement juridique du contrat électronique, Thèse, Montréal, 1998, to be published) does refer to the same idea.

Is that a revolution? Yes, if we consider that we accept clearly that a contract might be existing and binding without one of its essential elements: the consent. No, if we are viewing the solution as a supplementary development of the recent theory of the appearance, already adopted in many of our civil code legal systems. A trading party by its conduct »that is sufficient to show an agreement«[72] has created a situation which has definitively created the basis for a legitimate expectation as regards the existence of the obligation at the burden of the electronic agent's controller. As asserted by Atiyah[73] quoted by number of the authors already quoted[74]: »The truth is (a party) is bound not so much because of what he intends but because of what he does . . . the man who signs a written contract is liable because of what he does for the *good reason that other parties are likely to rely upon what he does in ways which are reasonable and even necessary by the standards of our society.*« This final assertion has nothing revolutionary[75] insofar as in the past a lot of contracts notably in case of silence of one of the contracting parties have been considered as concluded notwithstanding the absence of real intent to be bound. Particularly, it was the case when due to the behaviour of this party, the other one could legitimately be confident as regards the existence of the contract. Definitively, the holy principle of the »autonomy of the will« is not so absolute to deny any existence of the contract in those cases.

Moxhe, 1st of Aug. 99

72 Compare: »In my opinion the answer to that question should not be deduced from conceptual reflections on wheter the actual or latent will is, but rather on a pragmatic approach. . . . This approach is in full accordance with article 2.1. of the Unidroit principles, according to which a contract may be concluded ». . . by conduct of the parties that is sufficient to show agreement.« (M.B. Andersen, op.cit., p. 14).

73 P.S. Atyah, Essays on Contract, Oxford, Clarendon Press Paperbacks, 1990, 22.

74 So Allen and Widdison; Gautrais, etc.

75 On that point we disagree with Nimmer's assertion about the need to adopt new revoliutionary models: »We believe that electronic systems require a a contracting model that employs a paradigm independant of hypothetical human choices and artificial human assent to specific agreements. Those choices do not always today. As technology evolves, they become less and less relevant.« (R.T. Nimmer and P. Krauthouse, op.cit., 949.